

AMENDED LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in this application:

1. (Currently amended) A method for determining resonant frequencies of electromagnetic ~~radiation emission~~ for influencing a medium surrounding a target ~~genomic material~~ nucleic acid chain, ~~the genomic material said nucleic acid chain surrounded by a medium being sensitive to the electromagnetic response characteristics of the surrounding medium~~, comprising:

providing a ~~frequency-emitting device capable of producing a frequency-influenced electric field, or magnetic field, or electromagnetic field, or electrical current emission~~;

determining a velocity for the propagation of the electromagnetic ~~radiation emission~~ through the medium surrounding the ~~genomic material~~ target nucleic acid chain;

determining a ~~wavelength~~ length parameter of the ~~genomic material~~ target nucleic acid chain when said target nucleic acid chain material consists of double-stranded or single-stranded molecules consisting of deoxyribonucleic acid or ribonucleic acid; ~~the genomic material said target nucleic acid chain~~ comprising a plurality of base-pairs nucleotide bases spaced apart by an average spacing, the average spacing comprising a known value, by determining obtaining the number of base-pairs nucleotide bases in the genomic material in a single strand of the target nucleic acid chain, in the case of double-stranded molecules not including the number of nucleotide bases in the complementary strand; and multiplying the said number of base-pairs nucleotide bases by the known value for the average spacing between base-pairs the nucleotide bases;

determining a first resonant frequency of the genomic material to influence the medium-sensitive target nucleic acid chain in one a first electromagnetic frequency range by dividing the velocity of the electromagnetic ~~radiation through emission~~ in the surrounding medium by the ~~wavelength~~ length parameter of the ~~genomic material~~ target nucleic acid chain;

multiplying or dividing the first resonant frequency by a factor of a power of two to provide a second resonant frequency in another electromagnetic frequency range;

dividing the number of nucleotide bases into a constant, said constant constituting a shortened version of the aforesaid entire mathematical procedure;

programming the ~~frequency-emitting~~ frequency-capable emission device to emit the ~~second~~ either first or second resonant frequency; and

selectively influencing the target ~~genomic-material~~ nucleic acid chain with the first or second resonant frequency in the ~~another electromagnetic frequency range~~ when the ~~frequency-emitting~~ frequency-capable emission device emits the said first or second resonant frequency into the medium surrounding the target ~~genomic-material~~ nucleic acid chain.

2. (Currently Amended) The method of claim 1, wherein determining the ~~wavelength length~~ parameter of the ~~genomic-material~~ target nucleic acid chain comprises ~~measuring using the~~ known spacing value between adjacent ~~base-pairs~~ nucleotide bases and multiplying the number of ~~base-pairs~~ nucleotide bases in the ~~genomic-material~~ target nucleic acid chain by the ~~measured~~ known spacing value between adjacent ~~base-pairs~~ nucleotide bases, and using the resulting value as a wavelength parameter.

3. (Canceled)

4. (Currently Amended) The method of claim 1, wherein the medium surrounding the ~~genomic-material is in-vivo tissue having~~ target nucleic acid chain has a unique electrical permittivity, wherein determining the velocity for the propagation of the electromagnetic ~~radiation through~~ emission in the medium surrounding the ~~genomic-material~~ target nucleic acid chain comprises ~~relating the unique electrical permittivity of in-vivo tissue to the velocity,~~ obtaining the unique electrical permittivity value for the medium under consideration, and then determining said medium-associated velocity, wherein velocity = $1 / \sqrt{\epsilon_0 \mu_0}$, where ϵ_0 is electrical permittivity, and μ_0 is magnetic permeability. $1 / \sqrt{\epsilon \mu}$, where ϵ is the electrical permittivity of the medium, and μ is the magnetic permeability of the medium.

5. (Currently amended) The method of claim 4, further comprising the step of determining a refractive index of the electromagnetic radiation ~~through emission in~~ in the in-vivo tissue by dividing the speed of light in a vacuum by the speed of light in the in-vivo tissue, wherein dividing one ~~therapeutic~~ resonant frequency determined for the ~~genomic-material~~ target nucleic acid chain surrounded by air by the refractive index for in-vivo tissue yields one of the ~~therapeutic~~ resonant frequencies for the ~~genomic-material~~ target nucleic acid chain surrounded by in-vivo tissue.

6. (Currently amended) The method of claim 1, further comprising the steps of:
multiplying the first or second resonant frequency ~~in another electromagnetic frequency range~~ by a positive integer to determine harmonic frequencies,
dividing the first or second resonant frequency by a positive integer to determine subharmonic frequencies,
programming the ~~frequency-emitting~~ frequency-capable emission device to emit the harmonic ~~and~~ and/or subharmonic frequencies, and
selectively influencing the target ~~genomic-material~~ nucleic acid chain with the first or second resonant frequency, ~~in another electromagnetic frequency range and~~ and/or the harmonic ~~and~~ and/or subharmonic frequencies when the ~~frequency-emitting~~ frequency-capable emitting device emits the first or second resonant frequency ~~and~~ and/or the harmonic ~~and~~ and/or subharmonic frequencies into the medium surrounding the target ~~genomic-material~~ nucleic acid chain.

7. (Currently amended) The method of claim 1, wherein selectively influencing the target ~~genomic-material~~ nucleic acid chain comprises debilitating the target ~~genomic-material~~ nucleic acid chain.

8. (Currently amended) The method of claim 1, wherein selectively influencing the target ~~genomic-material~~ nucleic acid chain comprises stimulating the target ~~genomic-material~~ nucleic acid chain.

9. (Currently Amended) The method of claim 1, wherein selectively influencing the target ~~genomic material~~ nucleic acid chain with the first or second resonant frequency comprises selectively influencing ~~genomic material~~ nucleic acid chains present in humans.

10. (Currently Amended) The method of claim 1, wherein selectively influencing the target ~~genomic material~~ nucleic acid chain with the first or second resonant frequency comprises selectively influencing ~~genomic material~~ nucleic acid chains present in animals.

11. (Currently Amended) The method of claim 1, wherein selectively influencing the target ~~genomic material~~ nucleic acid chain with the first or second resonant frequency comprises selectively influencing ~~genomic material~~ nucleic acid chains present in agricultural settings.

12. (Currently Amended) The method of claim 1, wherein selectively influencing the target ~~genomic material~~ nucleic acid chain with the first or second resonant frequency comprises selectively influencing ~~genomic material~~ nucleic acid chains present in water systems.

13. (Currently Amended) The method of claim 1, wherein selectively influencing the target ~~genomic material~~ nucleic acid chain with the first or second resonant frequency comprises selectively influencing ~~genomic material~~ nucleic acid chains present in food processing systems.

14. (Currently amended) The method of claim 1, wherein the medium surrounding the ~~genomic material~~ target nucleic acid chain is in-vivo tissue, further comprising the steps of:

determining for the ~~genomic material~~ target nucleic acid chain in a medium of air the first resonant frequency in one electromagnetic frequency range and the second resonant frequency in another electromagnetic frequency range, and

~~multiplying~~ dividing each of the first resonant frequency in one electromagnetic frequency range and the second resonant frequency in another electromagnetic frequency range determined for the ~~genomic material~~ target nucleic acid chain in a medium of air by the square

~~root of two~~ refractive index for in-vivo tissue to yield corresponding resonant frequencies for the ~~genomic material~~ target nucleic acid chain surrounded by in-vivo tissue.

- 15. (Cancelled)
- 16. (Cancelled)
- 17. (Cancelled)
- 18. (Cancelled)
- 19. (Cancelled)
- 20. (Cancelled)
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- 22. (Cancelled)
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- 24. (Cancelled)
- 25. (Cancelled)
- 26. (Cancelled)
- 27. (Cancelled)
- 28. (Cancelled)
- 29. (Cancelled)